international Application No PCT/US2004/027954

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07K16/30 A61K39/395

C12N15/63

C12N5/10

A61P35/00 C07K14/71 G01N33/53 G01N33/574 C12N15/13

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 GO1N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, Sequence Search, WPI Data

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	WO 02/056022 A (MINERVA BIOTECHNOLOGIES CORPORATION) 18 July 2002 (2002-07-18) figure 4; examples 1,2; sequences 7,8 the whole document	1-137, 139-195
Х	WO 02/078598 A (RAMOT UNIVERSITY AUTHORITY FOR APPLIED RESEARCH &; WRESCHNER, DANIEL H) 10 October 2002 (2002-10-10) claims 1-28; figures 2,6 the whole document	1-137, 139-195
X	WO 02/22685 A (KUFE, DONALD, W; OHNO, TSUNEYA) 21 March 2002 (2002-03-21) claims 1-49; sequence 1 the whole document	1-137, 139-195

Y Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> </ul>	<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the international search  2 March 2005	Date of mailing of the international search report  16/03/2005
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,  Fax: (+31–70) 340–3016	Authorized officer Favre, N

Form PCT/ISA/210 (second sheet) (January 2004)

International Application No PCT/US2004/027954

	tation of document, with indication, where appropriate, of the relevant passages  WO 92/07000 A (TRANSGENE S.A)  30 April 1992 (1992-04-30)  page 15 - page 18	1-137,
july C.	WO 92/07000 A (TRANSGENE S.A) 30 April 1992 (1992-04-30) page 15 - page 18	1-137,
	30 April 1992 (1992-04-30) page 15 - page 18	
	LIC C EAO CAO DA (MOKENZIE TAN E O ET AL)	139–195
1	US 6 548 643 B1 (MCKENZIE IAN F. C ET AL) 15 April 2003 (2003-04-15) tables 1-7 the whole document	1-137, 139-195
	WO 03/020280 A (MINERVA BIOTECHNOLOGIES CORPORATION) 13 March 2003 (2003-03-13) page 33, line 32	177,179
	WO 03/020279 A (MINERVA BIOTECHNOLOGIES CORPORATION) 13 March 2003 (2003-03-13) the whole document	1-137, 139-195
	MEERZAMAN DAOUD ET AL: "Involvement of the MAP kinase ERK2 in MUC1 mucin signaling" AMERICAN JOURNAL OF PHYSIOLOGY, vol. 281, no. 1 Part 1, July 2001 (2001-07), pages L86-L91, XP001205513 ISSN: 0002-9513 the whole document	1-137, 139-195
	WO 03/089451 A (DYAX CORPORATION; HOOGENBOOM, HENDRICUS, R., J., M; HENDERIKX, MARIA,) 30 October 2003 (2003-10-30) the whole document	1-137, 139-195
x	WO 2004/005470 A (IMMUNOGEN, INC) 15 January 2004 (2004-01-15) the whole document	1-137, 139-195

### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 138

The subject-matter of independent claim 138 is completely unclear in the sense of Article 6 PCT. This claim states the scope of a method but lacks any technical feature which would allow the performance of said method.

In view of this fundamental lack of clarity, a meaningful search of this claim is not possible.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. X Claims Nos.: 138 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  see FURTHER INFORMATION sheet PCT/ISA/210
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
1. As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

Information on patent family members

International Application No
PCT/US2004/027954

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 02056022	A	18-07-2002	CA	2430060 A1	18-07-2002
			EP	1354196 A2	22-10-2003
			JP	2004534730 T	18-11-2004
			WO	02056022 A2	18-07-2002
			ÜS	2003036199 A1	20-02-2003
			ÜS	2003056244 A1	20-03-2003
			ÜŠ	2003074700 A1	17-04-2003
			ÜŠ	2003221223 A1	27-11-2003
			US	2004078851 A1	22-04-2004
			US	2004063617 A1	01-04-2004
			US	2004111766 A1	10-06-2004
WO 02078598	Α	10-10-2002	CA	2442531 A1	10-10-2002
110 02070030	••	10 10 2002	WO	02078598 A2	10-10-2002
			ÜS	2005019324 A1	27-01-2005
WO 0222685	А	21-03-2002	AU	9263101 A	26-03-2002
	.,		CA	2421751 A1	21-03-2002
			CN	1455680 A	12-11-2003
			EP	1317278 A2	11-06-2003
			JP	2004515472 T	27-05-2004
			WO.	0222685 A2	21-03-2004
			US	2004018181 A1	29-01-2004
			US	2005042209 A1	24-02-2005
WO 9207000	Α	30-04-1992	FR	2668064 A1	24-04-1992
			ΑT	169640 T	15-08-1998
			CA	2094705 A1	24-04-1992
			DE	69129989 D1	17-09-1998
			DE	69129989 T2	08-04-1999
			DK	554344 T3	17-05-1999
			EP	0554344 A1	11-08-1993
			ES	2121791 T3	16-12-1998
			WO	9207000 A1	30-04-1992
			HK	1012841 A1	05-05-2000
			JP	3195958 B2	06-08-2001
			JP	6502399 T	17-03-1994
			SG	96535 A1	16-06-2003
		•	US	6203795 B1	20-03-2001
			US	6328956 B1	11-12-2001
			US	5861381 A	19-01-1999
US 6548643	B1	15-04-2003	US	6177256 B1	23-01-2001
			US	5989552 A	23-11-1999
			WO	0157068 A1	09-08-2001
			AU	2987701 A	14-08-2001
			CA	2399026 A1	09-08-2001
			EP	1257565 A1	20-11-2002
			JP	2003533181 T	11-11-2003
WO 03020280	Α	13-03-2003	CA	2459584 A1	13-03-2003
	••		EP	1434584 A2	07-07-2004
			JР	2005501887 T	20-01-2005
			WO.	03020280 A2	13-03-2003
			ÜS	2003119834 A1	26-06-2003
WO 03020279	 A	13-03-2003	CA	2459583 A1	13-03-2003
110 00000077	,,,	10 00 E000	EP	1425016 A2	09-06-2004
			L-1	1-12-010 NZ	

# BEST AVAILABLE COPY

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/027954

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03020279	Α		WO US	03020279 A2 2003130293 A1	13-03-2003 10-07-2003
WO 03089451	Α	30-10-2003	AU CA EP WO US	2003225009 A1 2482596 A1 1497649 A2 03089451 A2 2003235868 A1	03-11-2003 30-10-2003 19-01-2005 30-10-2003 25-12-2003
WO 2004005470	Α	15-01-2004	WO US	2004005470 A2 2004057952 A1	15-01-2004 25-03-2004